

Putting Downsizing in Perspective

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INPUT

for NTT
January 14, 1992



Introduction

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Downsizing

Topics

- Introduction
- Types of Downsizing
- Downsizing Plans
- Conclusions

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Information Technology Environment

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Revolutions

- Downsizing
- Outsourcing
- Networking

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Revolutions or Evolutions?

- Re-engineering
 - Organization: All or parts
 - IS Organization

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The Systems Industry— Past

Demand increase - 30% to 40% per year

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Price/performance improvement - 20%
per year

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Industry growth - 10% to 20% per year

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The Systems Industry— Now

Demand increase - 30% per year ?

+

Price performance improvement - 40%
per year

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Industry Shrinkage

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The Systems Industry— Past

Operating environments protected
core systems prices

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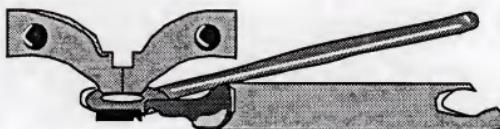
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The Systems Industry— Now

Open Systems

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Question

What thresholds are crossed
with technology improvement?

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Technology Forecasts

- Printing 100 MIPS computer this decade
- Using 100 MIPS computers in hand-held devices
- Megabit transmission rates common and affordable

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Revolution and Opportunities

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Systems Downsizing

- 52% implementing downsizing
- 20% planning or considering

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Downsizing

Types of Downsizing

- Platform driven
- Application driven
- Organization driven

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Downsizing

Platform Driven Description

- Replacement of the core processing capability (platform) on a price/performance basis.

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Downsizing

Platform Driven Technologies Supporting

- SQL servers
- RISC
- Cooperative processing
- LANs—client/servers
- Open systems

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Platform Driven Driving Forces

- Price/performance
- Costs
- Purchased applications
- Ease of use of technology
- Reaction time

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Application Driven Description

- Transfer of the application, either user interface or all, to a workstation or LAN environment.

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LAN Use—Active Central Applications

| Application | % Act. 1990 | % to be Act.—1992 |
|--------------------|----------------|----------------------|
| Accounting | 45 | 60 |
| Executive Info Sys | 27 | 65 |
| Mainframe DBS | 40 | 72 |
| Queries | | |

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LAN Use—Active Central Applications

| Application | % Act. 1990 | % to be Act.—1992 |
|-----------------------|----------------|----------------------|
| Production Scheduling | 16 | 36 |
| Sales Reporting | 23 | 38 |
| Order Entry | 23 | 37 |

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LAN Use—Active PC Applications

| Application | % Act. 1990 | % to be Act.—1992 |
|--------------------|----------------|----------------------|
| Electronic Mail | 52 | 75 |
| Desktop Publishing | 55 | 68 |
| PC Tools | 84 | 90 |

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Application Driven Technologies Supporting

- SQL
- Client/server
- Distributed data base management systems
- LANs—client/servers

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Application Driven Driving Forces

- User involvement in application development
- Re-engineering of business processes
- Many information technologies
- Proving IS can be cost effective

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Application Driven—Example

- Executive Information System
 - LAN-based server
 - SQL data base
 - PC interface—user can customize
 - Structured interfaces to operational data bases

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Platform Driven—Example

- Food processing—beer company
- 1 mainframe to 3 RISC servers
- Complete replacement of applications (purchased)
- Budget reduced by 40%
- Implementation—2 years

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Organization Driven Description

- The role of information systems becomes focused on advising and consulting, not performing.

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Organization Driven Driving Forces

- Re-engineering of the total organization
- User involvement in IS process
- IS performance problems
- Client/server and RISC technology

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Organization Driven Impacts

- IS process becomes owned by user
- IS becomes integrated with the business
- IS decisions become business driven

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Downsizing Plans

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Downsizing

Survey

- Information systems executives
- Information services vendors
- Same questions
 - What are the underlying issues?
 - What will be the rate of progress?
- Goal - Is there conflict or confusion?

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Application and Data Base Plans

Question: Where is each application or data base planned to reside in 1991 and 1995?

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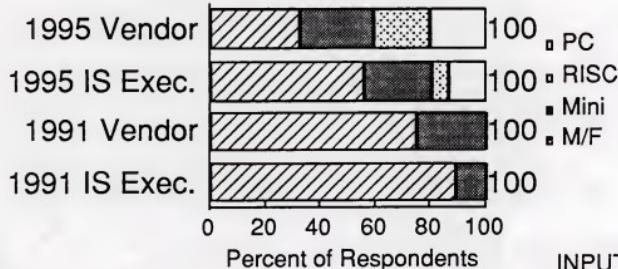
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Application Plans— Accounting



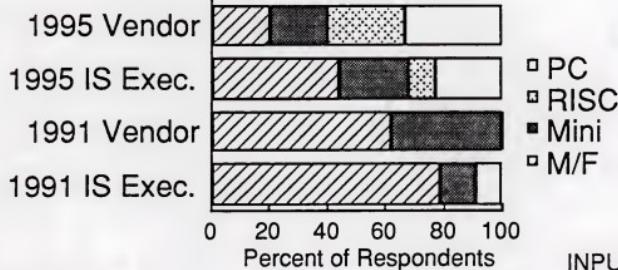
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Application Plans— Purchasing



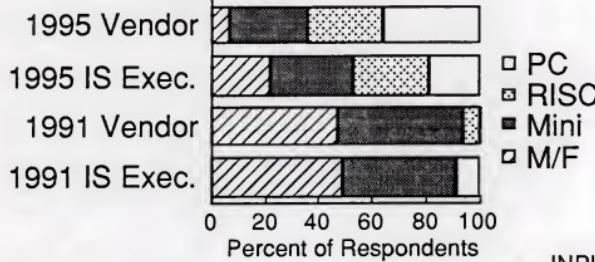
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Application Plans— Production



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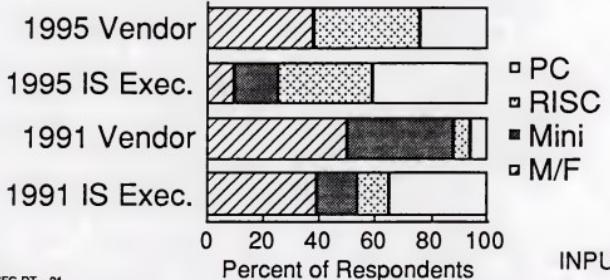
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Application Plans— Image Processing



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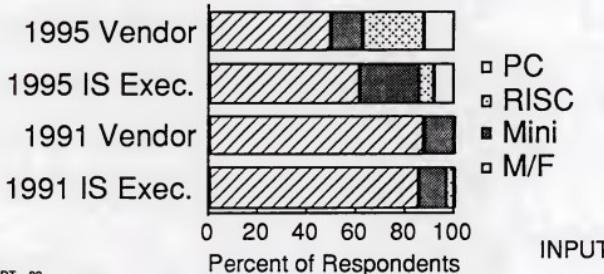
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Data Bases Plans— Finance/Accounting

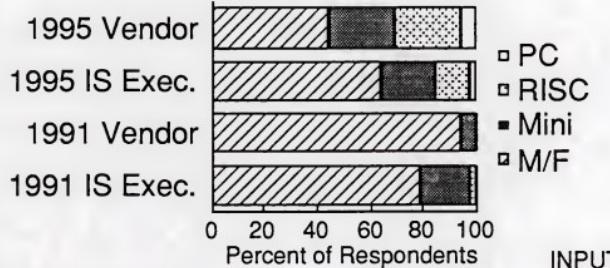


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Data Base Plans— Operating



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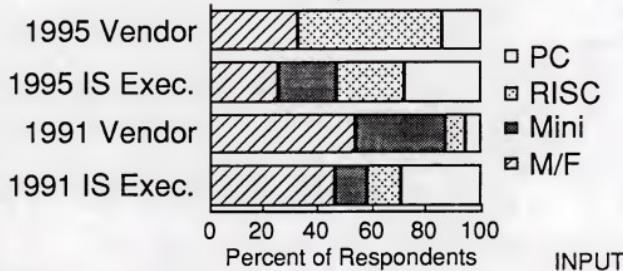
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Data Base Plans— Image



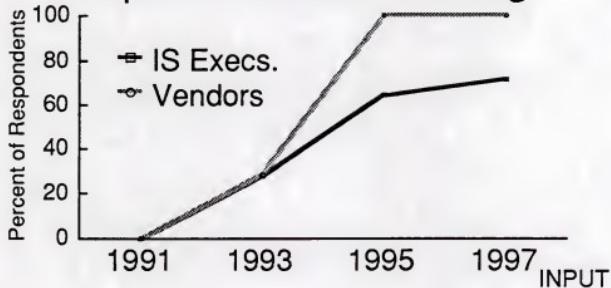
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Downsizing
Major Client/Server Applications
Implementation Timing



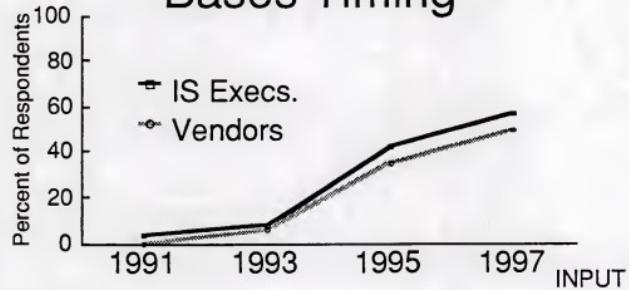
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Significant Distributed Data Bases Timing



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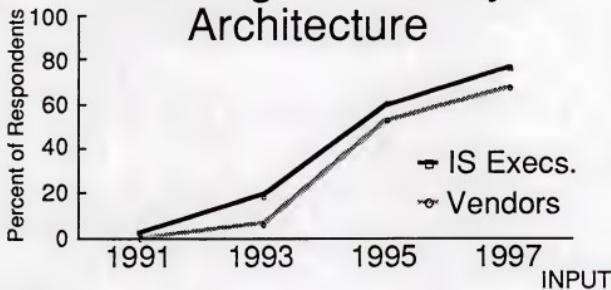
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Timing of Cooperative Processing As Primary IS Architecture



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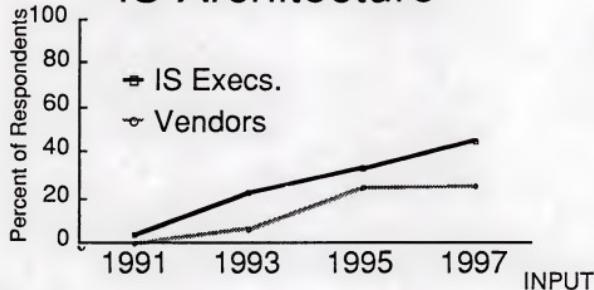
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Timing of SAA As Primary IS Architecture



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Downsizing

Benefits

| Concept | % Agreeing | |
|-----------------------------|------------|---------|
| | IS Execs. | Vendors |
| Improve user responsiveness | 83 | 89 |
| Faster development | 77 | 61 |
| More effective IT | 75 | 89 |
| IS role/expense reduced | 62 | 78 |
| Reduced software costs | 46 | 44 |

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Downsizing

Benefits

| Concept | % Agreeing | |
|----------------------------|------------|---------|
| | IS Execs. | Vendors |
| Improved productivity | 62 | 94 |
| Reduced hardware costs | 65 | 88 |
| Improved business planning | 58 | 89 |
| Improved control of IR | 33 | 62 |

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Distribution of Function

| Appropriate Platform Function | IS Execs. | Vendors |
|-------------------------------|-----------|---------|
| Secure data bases | M/F | M/F |
| Repository mgmt. | M/F | M/F |
| Critical data bases | M/F | M/F |

M/F = Mainframe

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Distribution of Function

| Appropriate Platform Function | IS Execs. | Vendors |
|-------------------------------|-----------|----------|
| Image processing | All | M/F-PC |
| Network management | M/F | RISC-All |
| Transaction processing | M/F | M/F-RISC |

M/F = Mainframe PC = Personal computer

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Distribution of Function

| Appropriate Platform Function | IS Execs. | Vendors |
|-------------------------------|-----------|-----------|
| Distributed DBs | M/F-Mini | RISC-Mini |
| Program development | PC | PC |

M/F = Mainframe PC = Personal computer

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Conclusions

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Downsizing

Issues

- Information Systems
 - Shifting underlying technology
 - Re-engineering without losing data integrity
 - Managing the transition
 - Buying from new vendors

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Issues

- Information services vendors
 - Where to invest: RISC, UNIX, SQL?
 - How fast will IS move?
 - Is the underlying technology ready?
 - Learning to sell to the user

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Conclusions

- Confusion—but many plans
- IS execs. and vendors do not agree
- Vendor investment will drive direction
- *Technology* = revolution
- *Implementation* = evolution

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Conclusions

- Information systems
 - Basis for re-engineering/ re-investment
 - Does not negate role of IS
 - Opportunity to provide real ROI
 - Opportunity to market increased IT benefits

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Conclusions

- Information services vendors
 - Source of new opportunities
 - Shifts investment from old to new
 - Cause change in market strategy
 - May increase pricing and profit pressures

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Recommendations

- IS Execs.
 - The 90s—Age of Architecture
 - Integration, integration, integration
- Vendors
 - Clarity of direction
 - Balance your investments

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Conclusions

- Vendors more optimistic than buyers
- Some applications will lead
- Data bases move more slowly than applications

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Downsizing

INPUT 1992 Research Plans

- Downsizing and IT architectures
- Client/server application development
- Impacts on IT vendors
- Impacts on role of information systems
- Case studies

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